

## ABSTRACT

The present invention relates to the use of primers in polymerase chain reaction assays for the detection of fungal pathogens *Colletotrichum acutatum*, *Alternaria* spp., and 5 *Cladosporium carpophilum*. Specific primers are identified as being useful for the identification of fungal isolates using PCR based techniques. Also described are novel extraction buffer solutions for use in isolating DNA from an organism, methods of extracting DNA from tissue, and methods of performing PCR analysis on DNA extracted from tissue.

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